Abigail Loe, Ph.D.

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Professional Experiences

2026 – Present **Assistant Professor of Statistics,** Department of Mathematics, Statistics and Computer Science, Macalester College.

Education

2023 – 2026 **Ph.D., University of Michigan** Biostatistics
Thesis title: *Dynamic Prediction Models for Recurrent and Alternating Recurrent Events*

2021 – 2023 **M.Sc. Biostatistics, University of Michigan**

2017-2021 **B.A. Mathematics,** *cum laude*, **Carleton College**

Scholarly Activities

Peer-Reviewed Articles

1. J. S. Kim, **A. Loe**, S.-F. Ma, P. Ranjan, et al., "Gut microbiota associate with disease severity and survival in idiopathic pulmonary fibrosis," *American Journal of Respiratory and Critical Care Medicine*, 2026.
2. **A. Loe**, S. Murray, and Z. Wu, "A random forest inverse probability weighted pseudo-observation framework for alternating recurrent events," *under revision at Biometrics*, 2026.
3. **A. Loe**, S. Murray, and Z. Wu, "Random forest for dynamic risk prediction of recurrent events: A pseudo-observation approach," *Biostatistics*, vol. 26, no. 1, pp. 1–20, 2025.

Presentations and Abstracts

1. **A. Loe**, *Inverse Probability Weighted Pseudo-Observations for Alternating Recurrent Events*. University of St. Thomas Center for Applied Mathematics Seminar, Oct. 2026, Saint Paul, Minnesota. Invited presentation.
2. **A. Loe**, *Inverse Probability Weighted Pseudo-Observations for Alternating Recurrent Events*. Eastern North American Region of the International Biometric Society, Mar. 2026, Indianapolis, Indiana, USA. Contributed Paper.
3. T. Perelman, A. Beveridge, **A. Loe**, and L. Witus, *Using Gradescope for Assessment*. Conversations About Scholarship and Teaching, Oct. 2026, Saint Paul, Minnesota.
4. J. Kim et al., *Gut Microbiome in Idiopathic Pulmonary Fibrosis*. European Respiratory Society Congress, Sep. 2025, Amsterdam, Netherlands. Peer-reviewed Abstract.
5. **A. Loe**, *Inverse Probability Weighted Pseudo-Observations for Alternating Recurrent Events*. Carleton College Department of Mathematics and Statistics Seminar, Oct. 2025, Northfield, Minnesota. Invited presentation.
6. **A. Loe**, *Inverse Probability Weighted Pseudo-Observations for Alternating Recurrent Events*. St. Olaf College Department of Mathematics and Statistics Seminar, Oct. 2025, Northfield, Minnesota. Invited presentation.
7. **A. Loe**, *Analysis of Recurrent Event Data via Random Forest for Dependent Pseudo-Observations*. Eastern North American Region of the International Biometric Society, Mar. 2024, Baltimore, Maryland. Contibuted Paper.

8 **A. Loe**, *Inverse Probability Weighted Pseudo-Observations for Alternating Recurrent Events*. Joint Statistical Meetings, Aug. 2024, Portland, Oregon. Contributed Poster.

9 **A. Loe**, *Random Forest Regression for Longitduinal Data*. Biostatistics 653, Nov. 2024, Ann Arbor, Michigan. Guest Lecture.

10 **A. Loe**, *Right-Censored Recurrent Events*. Ann Arbor Chapter of the ASA, Apr. 2024, Ann Arbor, Michigan. Lecture.

11 **A. Loe**, *Analysis of Recurrent Event Data via Random Forest for Dependent Pseudo-Observations*. Joint Statistical Meetings, Aug. 2023, Toronto, ON, Canada. Contributed Paper.

12 **A. Loe**, *Random Forest Regression and Survival Analysis*. Biostatistics 523, Dec. 2023, Ann Arbor, Michigan. Guest Lecture.

13 **A. Loe**, *Just Statistics: Statistical Analysis, In the Dark, and the Failure of the U.S. Justice System*. Michigan Student Symposium for Interdisciplinary Statistical Sciences, Mar. 2022, Ann Arbor, Michigan. Speed Presentation.

14 **A. Loe**, *Just Statistics: Statistical Analysis, In the Dark, and the Failure of the U.S. Justice System*. Michigan Student Symposium for Interdisciplinary Statistical Sciences, Mar. 2022, Ann Arbor, Michigan. Poster.

15 **A. Loe**, *The ABC Conjecture*. Nebraska Conference for Undergraduate Women in Mathematics, Feb. 2020, Omaha, Nebraska. Poster Session.

16 **A. Loe** and M. Geist, *Minimal Discriminants of Rational Elliptic Curves*. Joint Mathematics Meeting, Jan. 2020, Denver, Colorado. Contributed Presentation.

17 **A. Loe**, M. Geist, O. Ekblad, and C. Alvaro, *Minimal Discriminants of Rational Elliptic Curves & the Szpiro Ratio*. Joint Mathematics Meeting, Jan. 2020, Denver, Colorado. Undergraduate Poster Session.

18 O. Ekbald and **A. Loe**, *The ABC Conjecture & the Szpiro Ratio*. Mathematical Association of America MathFest, Aug. 2019, Cincinnati, Ohio. Undergraduate Research Presentations.

19 **A. Loe** and M. Geist, *Minimal Discriminants of Rational Elliptic Curves*. Northfield Undergraduate Mathematics Symposium, Oct. 2019, Northfield, Minnesota. Presentation.

Books and Chapters

1 **A. Loe**, *Dynamic Prediction Models for Recurrent and Alternating Recurrent Events*. Ann Arbor, Michigan: DeepBlue: University of Michigan Dissertations and Theses, 2026. DOI: https://doi.org/10.7302/dspace/30430

Awards

2025 **Outstanding Citizenship Award**, University of Michigan Department of Biostatistics

Gertrude M. Cox Scholarship, American Statistical Association

2022 **Best Master's Student Presentation**, Michigan Student Symposium fr Interdisciplinary Statistical Sciences.